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MAPRIMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Amin et al.	
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				U.S. PATENT DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING (IF APPR	DATE OPRIATE
SC	A42	US 6,633,053	10/14/2003	Jaeger	257	14	04/2	2000
SC	A43	US 6,753,546	06/22/2004	Tzalenchuk et al.	257	31	08/2	2002
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EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
SC	Berggren, K.K., D. Nakada, T. P. Orlando, E. Macedo, R. Slattery, and T. Weir, 2001, "An integrated superconductive device technology for qubit control," <i>Proceedings of the 1st International Conference on Experimental Implementations of Quantum Computation</i> , Sydney Australia, 16–19 Jan. 2001, (Rinton, Princeton, New Jersey).

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SC	A46	US-5,787,307	7/28/1998	Imoto						
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SC	B01	EP 0251568 A1	1/7/1988	Europe			_			
SC	B02	EP 1085422 A2	3/21/2001	Europe						
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SC	AP				mental Investigations B: 185-198, 1984.	of the Sta	ationa	ary Behavio	ur of T	hin
SC	AQ	Zahn, W., "Exp Current of DC- 1980.	perimental A Tunnel-SQU	pparatus fo JIDs," <i>EXP</i>	or the Measurement of ERIMENTELLE TECK	HNIK DE	ER PF	<i>TYSIK 28</i> : 1	63-168	
SC	AR	Zahn, W., "The TECHNIK DEA			Low Damped DC-SQ 1984.	UID," E	XPEF	RIMENTELI	LE	
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SC	A41	US-6,563,311	05-2003	Zagoskin					
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•EXAMINER INITIAL		DOCUMENT NUMBER	DATE	N/	AME	CLASS	SUBCLASS		FILING DATE IF APPROPRIATE
SC	A01	5,323,344	6-21-1994	K. Katayama, and	S. Kamohara	λ.			
I	A02	5,917,322	6-29-1999	N. Gershenfeld and	I. Chuang				
	A03	6,495,854 B1	12-17-2002	D. Newns, and C.C	C. Tsuei				12-30-1999
	A04	2002/0117656 A1	8-29-2002	M.H.S. Amin et al.	•				4-20-2001
	A05	2002/0180006 A1	12-05-2002	M. Franz et al.					5-31-2001
V	A06	09/452,749	N/A	A.M. Zagoskin					12-01-1999
SC	A07	09/637,514	N/A	A.V. Ustinov et al.					8-11-2000
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					YES	NO
		<u></u>				

		OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)
SC	A08	A. Aassime, G. Johansson, G. Wendin, R. Schoelkopf, and P. Delsing, "Radio-Frequency Single-Electron Transistor as Readout Device for Qubits: Charge Sensitivity and Backaction," <i>Phys. Rev. Lett.</i> 86, pp. 3376–3379 (2001).
	A09	D.V. Averin, "Adiabatic Quantum Computation with Cooper Pairs," Solid State Communications 105, pp. 659-664 (1998).
	A10	G. Blatter, V.B. Geshkenbein, and L.B. Ioffe, "Design aspects of superconducting-phase quantum bits," <i>Phys. Rev. B</i> 63, pp. 17451/1-9 (2001).
	All	G. Blatter, V.B. Geshkenbein, M.V. Feigel'man, A.L. Faucheare, and L.B. Ioffe, "Quantum Computing with Superconducting Phase Qubits," <i>Physica C</i> 352; pp. 105-109 (2001).
	A12	Mark F. Bocko, Andrea M. Herr, and Marc J. Feldman, "Prospect for Quantum Coherent Computation Using Superconducting Electronics," <i>IEEE Transactions on Applied Superconductivity</i> 7, pp. 3638-3641 (1997).
	A13	F. Benatti, et al., "Testing Macroscopic Quantum Coherence," IL Nuovo Cimento B 110, No. 5-6, pp. 593-610 (1995).
	A14	A. Blais, and A.M. Zagoskin, "Operation of universal gates in a solid-state quantum computer based on clean Josephson junctions between d-wave superconductors," <i>Phys. Rev. A</i> 61, 042308 (2000), pp. 042308/1-4.
	A15	HJ. Briegel, W. Dür, J.I. Cirac, P. Zoller, "Quantum repeaters for communication", arXiv.org:quant-ph/9803056, pp. 1-8 (1998), website last accessed on December 18, 2001.
1	A16	R. de Bruyn Ouboter, A.N. Omelyanchouk, and E.D. Vol, "Multi-terminal SQUID controlled by the transport current," <i>Physica B</i> 205, pp. 153–162 (1995).
SC	A17	G. Costabile, R. Monaco, and S. Pagano, "rf-Induced steps in intermediate length Josephson-tunnel junctions," J. Appl. Phys. 63, pp. 5406-5410 (1988).

EXAMINER	/Sara Crane/	DATE CONSIDERED	09/11/2006

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Express Mail Label No. ER 813 698 327 US

SC	A18	M.J. Feldman, "Digital Applications of Josephson junctions," Preprint submitted to <i>Progress of Theoretical Physics (Japan)</i> , pp. 1-16 (1997).
	A19	
	Alg	R. Feynman, "Simulating physics with computers," <i>International Journal of Theoretical Physics</i> 21, pp. 467-48 (1982).
+	A20	J. Friedman, V. Patel, W. Chen, S.K. Tolpygo, and J.E. Lukens, "Quantum super-position of distinct
	1.2	macroscopic states," Nature 406, pp. 43-46 (2000).
	A21	M. Götz, V.V. Khanin, H. Schulze, A.B. Zorin, J. Niemeyer, E. Il'ichev, A. Chwala, H.E. Hoenig, HG. Meyer
		"Harmonic current-phase relation in Nb-Al-based superconductor/ normal conductor/ superconductor-type
		Josephson junctions between 4.2 K and the critical temperature," Appl. Phys. Lett. 77, pp. 1354-1356 (2000).
	A22	L. Grover, "A fast quantum mechanical algorithm for database search," Proceedings of the 28th Annual ACM
		Symposium on the Theory of Computing, pp. 212-219 (1996).
	A23	L. Ioffe, V. Geshkenbein et al., "Environmentally decoupled sds-wave Josephson junctions for quantum
		computing," <i>Nature</i> 398, pp. 679–681 (1999).
	A24	J.A. Jones, M. Mosca, and R. H. Hansen, "Implementation of a quantum search algorithm on a quantum
		computer," <i>Nature</i> 393, pp. 344–346 (1998).
	A25	P. Jonker, and J. Han, "On Quantum & Classical Computing with Arrays of Superconducting Persistent Curren
ł		Qubits," Proceedings Fifth IEEE International Workshop on Computer Architectures for Machine Perception,
		Padova, Italy, September 11-13, 2000, pp. 69-78.
	A26	A. Kitaev, "Quantum measurements and the Abelian Stabilizer Problem," arXiv:quant-ph/9511026, pp. 1-22
		(1995), website last accessed on June 5, 2003.
	A27	E. Knill, R. Laflamme, and W. Zurek, "Resilient Quantum Computation," Science 279, pp. 342-345 (1998).
	A28	A.N. Korotkov and M.A. Paalanen, "Charge Sensitivity of Radio-Frequency Single Electron Transistor," Appl.
		Phys. Lett. 74, pp. 4052–4054 (1999).
	A29	Y. Makhlin, G. Schön, and A. Shnirman, "Quantum-State Engineering with Josephson-Junction Devices,"
	100	Reviews of Modern Physics, Vol. 73, pp. 357-400 (2001).
	A30	Y. Makhlin et al., "Nano-electronic Circuits as Quantum Bits," 2000 IEEE International Symposium on Circui
		and Systems, Emerging Technologies for the 21st Century, Geneva, Switzerland, March 28-32, 2000, pages 241
		244, volume 2.
	A31	J.E. Mooij, T.P. Orlando, L. Levitov, L. Tian, C.H. van der Wal, and S. Lloyd, "Josephson Persistent-Current
		Qubit," Science 285, pp. 1036-1039 (1999)
	A32	Y. Nakamura, Yu. A. Pashkin and J. S. Tsai, "Coherent control of macroscopic quantum states in a single-
		Cooper-pair box," <i>Nature</i> 398, pp. 786–788 (1999).
	A33	T.P. Orlando, J.E. Mooij, L. Tian, C.H. van der Wal, L.S. Levitov, S. Lloyd, and J.J. Mazo, "Superconducting
		persistent current qubit," Physical Review B 60, pp. 15398-15413 (1999).
	A34	R.C. Rey-de-Castro, M.F. Bocko, A.M. Herr, C.A. Mancini, and M.J. Feldman, "Design of an RSFQ Control
		Circuit to Observe MQC on an rf-SQUID," IEEE Transactions on Applied Superconductivity 11, pp. 1014-101
		(2001).
	A35	R.J. Schoelkopf, P. Wahlgren, A.A. Kozhevnikov, P. Delsing, and D.E. Prober "The Radio-Frequency Single-
	1.26	Electron Transistor (RF-SET): A Fast and Ultrasensitive Electrometer," Science 280, pp. 1238-1242 (1998).
	A36	P. Shor, "Polynomial-Time Algorithms for Prime Factorization and Discrete Logarithms on a Quantum
	A37	Computer," SIAM Journal on Computing 26, pp. 1484-1509 (1997). L.M.K. Vandersypen, M. Steffen, G. Breyta, C. S. Yannoni, R. Cleve and I.L. Chuang, "Experimental
	A3/	
	A38	realization of order-finding with a quantum computer," arXiv.org:quant-ph/0007017, pp. 1-4 (2000). C. van der Wal, A. ter Haar, F. K. Wilhelm, R. N. Schouten, C. Harmans, T. Orlando, S. Lloyd, and J. Mooij,
\ /	1430	"Quantum Superposition of Macroscopic Persistent-Current States," Science 290, pp. 773-777 (2000).
-\	A39	A. Wallraff, Yu. Koval, M. Levitchev, M. V. Fistul, and A. V. Ustinov, "Annular Long Josephson Junctions in
SC	1,000	Magnetic Field: Engineering and Probing the Fluxon Interaction Potential," J. Low Temp. Phys. 118, pp. 543-
		553 (2000).
		333 (2000).
		<u> </u>

EXAMINER	/Sara Crane/	DATE CONSIDERED	09/11/2006
• EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			